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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,215	03/15/2002	Ken Ebihara	NAN-0201	4654

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EXAMINER	
WONG, EDNA	

ART UNIT	PAPER NUMBER
1753	

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/018,215	EBIHARA ET AL.
	Examiner	Art Unit
	Edna Wong	1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *See "Other"*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *3/15/02; 8/27/02; 10/18/02*.

Specification

I. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the word "said" is used in lines 5 and 8. Correction is required. See MPEP § 608.01(b).

II. The disclosure is objected to because of the following informalities:

page 4, line 11, the word "electrlolytic" should be amended to the word -- electrolytic --.

page 17, line 20, the word "materil" should be amended to the word -- material --.

Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to

determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

Claims **1-5** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1

line 7, it appears that the "electrolytically coloring" is the same as that recited in claim 1, line 1. However, it is unclear if it is. If it is, then it is suggested that the word -- the -- be inserted after the word "for".

lines 7-8, it appears that "an aluminum material" is the same as that recited in claim 1, line 1. However, it is unclear if it is. If it is, then it is suggested that the word "an" be amended to the word -- the --.

lines 9-10, "the preset ultimate values" lack antecedent basis.

Claim 2

line 3, it appears that "a direct current waveform" is the same as that recited in

claim 1, line 5. However, it is unclear if it is. If it is, then it is suggested that the word "a" be amended to the word -- the --.

line 4, "the preset ultimate value" (singular) lacks antecedent basis. See also claim 2, line 5.

Claim 4

line 3, it appears that "a direct current waveform" is the same as that recited in claim 1, line 5. However, it is unclear if it is. If it is, then it is suggested that the word "a" be amended to the word -- the --. See also claim 4, line 5.

line 4, "the preset ultimate value" (singular) lacks antecedent basis. See also claim 4, lines 4-5 and lines 6-7.

Claim 5

line 7, it appears that the "alternating current electrolytic coloring" is the same as that recited in claim 1, line 6. However, it is unclear if it is. If it is, then it is suggested that the word -- the -- be inserted before the word "alternating".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims **1, 3 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hasegawa et al.** (US Patent No. 4,042,468).

Hasegawa teaches a process for electrolytically coloring an aluminum material which comprises the steps of:

(a) immersing an aluminum material consisting of anodized aluminum or an anodized aluminum alloy (= anodized specimen) in an electrolytic coloring bath containing a soluble metal salt (= nickel sulfate or magnesium sulfate) [col. 4, lines 28-40];

(b) performing a pretreatment prior to coloring by passing a direct current waveform with said aluminum material serving as the anode (col. 4, lines 46-49); and

(c) performing alternating current electrolytic coloring in the same electrolytic coloring bath (col. 49-52).

Hasegawa does not teach wherein said pretreatment prior to coloring is performed until the voltage and current respectively reach the preset ultimate values.

However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because Hasegawa teaches

that as the first step of electrolysis, a direct current voltage of 18.5 volts was impressed for 20 seconds across the specimen, which was made anodic, and the carbon cathode (col. 4, lines 46-49). Thus, the pretreatment prior to coloring is performed until the voltage (= 0 volts) and current (= 0 A/dm^2) respectively reach the preset ultimate values (V = 18.5 volts and I = the current at 18.5 volts).

As to wherein said alternating current electrolytic coloring is performed by passing to the aluminum material a voltage-controlled alternating current waveform having the peak voltage which is 0.55-0.8 times the final voltage in the pretreatment prior to coloring, Hasegawa teaches that as the first step of electrolysis, a direct current voltage of *18.5 volts* was impressed for 20 seconds across the specimen, which was made anodic, and the carbon cathode. The specimen was then subjected to a second step of electrolysis for 6 minutes by use of alternating current at *12.5 volts* (col. 4, lines 46-52).

Hasegawa appears to disclose a process at least in a similar manner as instantly claimed. Therefore, it would have been within the skill of the art to expect that a voltage-controlled alternating current waveform having the peak voltage which is 0.55-0.8 times the final voltage in the pretreatment prior to coloring passed to the aluminum material, unless proven otherwise.

As to wherein said pretreatment prior to coloring is constant voltage electrolysis

effected by starting the passage of a direct current waveform at a voltage lower than the preset ultimate value, then switching over to the ultimate value, and passing a direct current waveform and the constant voltage electrolysis is continued until the current reaches the preset ultimate value, Hasegawa teaches that as the first step of electrolysis, a direct current voltage of 18.5 volts was impressed for 20 seconds across the specimen, which was made anodic, and the carbon cathode (col. 4, lines 46-49). Thus, the pretreatment prior to coloring is constant voltage electrolysis (= 18.5 volts for 20 seconds) effected by starting the passage of a direct current waveform at a voltage (= 0 volts) lower than the preset ultimate value (= 18.5 volts), then switching over to the ultimate value (= 18.5 volts), and passing a direct current waveform and the constant voltage electrolysis is continued until the current reaches the preset ultimate value (= from 0 volts to18.5 volts).

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Claim **2** defines over the prior art of record because the prior art does not teach or suggest a process for electrolytically coloring an aluminum material as described in claim 1 wherein said pretreatment prior to coloring is constant current electrolysis effected by passing a direct current waveform while maintaining the current at the preset ultimate value and the constant current electrolysis are continued until the

voltage reaches the preset ultimate value.

Claim **5** defines over the prior art of record because the prior art does not teach or suggest a process for electrolytically coloring an aluminum material as described in any one of claims 1 to 4 wherein the aluminum material pretreated prior to coloring and placed in the electrolytic coloring bath is scanned by alternating current voltage to plot a voltage-current curve, the boundary voltage E_o is determined from the intersection of the respective extension lines of the flat and rising regions of the voltage-current curve, and the peak voltage in alternating current electrolytic coloring is controlled below the boundary voltage E_o.

The prior art does not contain any language that teaches or suggests the above. Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Claims 2 and 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edna Wong
Primary Examiner
Art Unit 1753

EW
February 9, 2004